

**Montreal, Maine & Atlantic Railway
Piscataquis County
Milo, Maine
A-27-71-L-R (SM)**

**Departmental
Findings of Fact and Order
Air Emission License**

After review of the air emissions license application, staff investigation reports and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., Section 344 and Section 590, the Department finds the following facts:

I. REGISTRATION

A. Introduction

Montreal, Maine & Atlantic Railway (MMAR) located in Milo, Maine has applied to renew their Air Emission License permitting the operation of emission sources associated with their locomotive/railcar maintenance facility.

B. Emission Equipment

The following equipment is addressed in this air emission license:

Fuel Burning Equipment

<u>Equipment</u>	<u>Maximum Capacity (MMBtu/hr)</u>	<u>Maximum Firing Rate (gal/hr)</u>	<u>Fuel Type, % sulfur</u>	<u>Stack #</u>
Boiler #1	19.5	139	#2 fuel oil, 0.5%	1
Boiler #2	19.5	--	out of service	1

Boiler #2 has been taken out of service but remains on-site. MMAR also operates a waste oil furnace with a maximum heat input of 0.28 MMBtu/hr. This furnace is considered an insignificant activity and is mentioned for inventory purposes only.

Process Equipment

<u>Equipment</u>	<u>Pollution Control Equipment</u>
Spray Booth #1	Filtration Chambers
Spray Booth #2	Filtration Chambers
Shot Blast Room	Fabric Filters

MMAR also operates two parts washers, a MART washer, which is a heated washer with a capacity of 167 gallons, and a cold cleaning machine with a 30 gallon capacity. The MART washer is heated with propane and uses an aqueous solution containing less than 5% VOC.

C. Application Classification

The application for MMAR does not include the licensing of increased emissions or the installation of new or modified equipment. Therefore, the license is considered to be a renewal of current licensed emission units only and has been processed through Chapter 115 of the Department's regulations. With the fuel limit on Boilers #1 and #2 the facility is licensed below the major source thresholds and is considered a synthetic minor.

II. BEST PRACTICAL TREATMENT (BPT)

A. Introduction

In order to receive a license the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in Chapter 100 of the Department regulations. Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

BPT for existing emissions equipment means that method which controls or reduces emissions to the lowest possible level considering:

- the existing state of technology;
- the effectiveness of available alternatives for reducing emissions from the source being considered; and
- the economic feasibility for the type of establishment involved.

B. Boilers #1 and #2

MMAR operates Boiler #1 primarily for facility heat and hot water. Boiler #1 previously fired #6 fuel oil but was converted to #2 fuel oil in 2002. It was also previously licensed to fire specification waste oil. However, with the installation of the new waste oil furnace, firing of waste oil in Boiler #1 is no longer performed.

Boiler #2 was not converted to #6 fuel and is currently out of service. MMAR will not restart Boiler #2 without first processing a license amendment with the Department.

Boilers #1 and #2 were installed in 1949, and are therefore not subject to the New Source Performance Standards (NSPS) Subpart Dc for steam generating units greater than 10 MMBtu/hr manufactured after June 9, 1989.

A summary of the BPT analysis for Boiler #1 is the following:

1. The total fuel use for Boiler #1 shall not exceed 200,000 gal/year of #2 fuel oil based on a 12 month rolling total.
2. The SO₂ emission limits are based on the firing of fuel which meets the criteria in ASTM D396 for #2 fuel oil.
3. Chapter 103 regulates PM emission limits. The PM₁₀ limits are derived from the PM limits.
4. NO_x emission limits are based on data from similar #2 fired boilers of this size and age.
5. CO and VOC emission limits are based upon AP-42 data dated 9/98.
6. Visible emissions from Boiler #1 shall not exceed 20% opacity on a six (6) minute block average, except for no more than one (1) six (6) minute block average in a continuous 3-hour period.

C. Painting Process

MMAR utilizes two spray paint booths for repainting locomotives and railcars. Each spray booth is equipped with individually controlled exhaust systems. Each exhaust system consists of two floor level filtration chambers (one on each side of its respective booth), three exhaust ducts per chamber, and six roof mounted fans capable of moving 26,000 cfm (cubic feet per minute) of air each. The exhaust system for each utilizes a modified down draft to direct over spray to floor level through the heavy particulate filter chambers before being emitted to atmosphere. In order to minimize fugitive emissions from the painting process, paint is fed from the sprayers from covered 55 gallon drums via a hose inserted into the drums, thus allowing the paint container to remain sealed.

Pollutants associated with the operation of painting equipment are PM, PM₁₀, volatile organic compounds (VOC) and Hazardous Air Pollutants (HAPs). BPT for the painting processes shall include good house keeping practices to minimize fugitive emissions. Good house keeping practices include covering paint storage containers when these containers are not in use, maintaining the seal around the suction hose from the paint drum when painting is being performed, cleaning excess and/or spilt material, proper containment and disposal of cleaning fluids from equipment cleaning processes and proper disposal of contaminated working equipment (gloves, coveralls, tools etc).

BPT for VOC emissions shall also be a maximum monthly average of 5.0 lb VOC per gallon of coating material (primer/interior and enamel etc.). BPT shall also include a finish department VOC limit of 39.9 TPY (tons per year). Compliance will be based on monthly record keeping indicating the amount of product used on site and the VOC content by weight of the finish.

BPT for HAPs emissions from the painting process is a HAPs emissions limit of 9.9 TPY of any single HAP and 24.9 TPY of all combined HAPs. Compliance will be based on monthly record keeping indicating the amount of product used and percent HAP by weight in each product.

MMAR as a facility that performs surface coating of miscellaneous metal parts and products, could be subject to Chapter 129 of the Department Regulations regarding Surface Coating Facilities. However, MMAR performs surface coating of transportation equipment and is therefore not subject to Chapter 129 of the Department Regulations as stated in Chapter 129 section 2 part A(5).

BPT for the control of particulate matter shall be filters on the spray booth and no visible emissions from the spray booth vents.

D. Shot Blasting Process

MMAR utilizes a shot blast process to remove paint from railcars and locomotives before repainting. Before the railcar or locomotive is sent down the paint track to the paint room it is held in the shot blast room where it takes two people approximately 2 hours to shot blast all the paint and rust from the car or locomotive. Dust from the shot blast room is pulled through ductwork, via a 42 inch fan driven by a 50 HP electric motor, into a dust collector. Dust collects on cloth filter plates. The filter plates are shaken by timed vibrators and the accumulated dust drops into 55 gallon drums via cones.

Pollutants associated with shot blasting are PM and PM₁₀. BPT for PM and PM₁₀ for the shot blast process shall be to close doors in the shot blast room during shot

blast operations, proper operation and maintenance of the blower system including duct work, blowers and dust collection equipment and frequent changing of the 55 gallon drums that collect the paint and shot blast dust. BPT shall also be good housekeeping in the shot blast operations areas. Good housekeeping includes the cleaning and proper disposal of used or spilt material and proper storage of unused material and equipment. Visible emissions from the shot blast process and dust collection equipment shall not exceed an opacity of 10% on a 6 minute block average basis.

E. Parts Washers

The parts washers shall be operated in accordance with MEDEP Chapter 130. Records shall be kept of the solvent added and removed from the cold cleaning machine. MMAR shall keep records of up to date MSDS sheets for all chemicals used in the parts washers.

F. Annual Emissions

MMAR shall be restricted to the following annual emissions, based on a 12 month rolling total:

Total Licensed Annual Emission for the Facility
Tons/year
(used to calculate the annual license fee)

	PM	PM₁₀	SO₂	NO_x	CO	VOC	HAP
Boiler #1	2.8	2.8	7.1	7.0	0.5	--	--
Facility Wide	--	--	--	--	--	39.9	9.9 single 24.9 total
Total TPY	2.8	2.8	7.1	7.0	0.5	39.9	9.9 single 24.9 total

III.AMBIENT AIR QUALITY ANALYSIS

According to the Maine Regulations Chapter 115, the level of air quality analyses required for a renewal source shall be determined on a case-by case basis. Modeling and monitoring are not required for a renewal if the total emissions of any pollutant released

do not exceed the following:

<u>Pollutant</u>	<u>Tons/Year</u>
PM	25
PM ₁₀	25
SO ₂	50
NO _x	100
CO	250

Based on the above total facility emissions, MMAR is below the emissions level required for modeling and monitoring.

ORDER

Based on the above Findings and subject to conditions listed below, the Department concludes that the emissions from this source:

- will receive Best Practical Treatment,
- will not violate applicable emission standards,
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-27-71-L-R subject to the following conditions.

Severability. The invalidity or unenforceability of any provision, or part thereof, of this License shall not affect the remainder of the provision or any other provisions. This License shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

STANDARD CONDITIONS

- (1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions (Title 38 MRSA §347-C).
- (2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 115. [MEDEP Chapter 115]

- (3) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both. [MEDEP Chapter 115]
- (4) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request. [MEDEP Chapter 115]
- (5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 M.R.S.A. §353. [MEDEP Chapter 115]
- (6) The license does not convey any property rights of any sort, or any exclusive privilege. [MEDEP Chapter 115]
- (7) The licensee shall maintain and operate all emission units and air pollution systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions. [MEDEP Chapter 115]
- (8) The licensee shall maintain sufficient records to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. The records shall be submitted to the Department upon written request. [MEDEP Chapter 115]
- (9) The licensee shall comply with all terms and conditions of the air emission license. The filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for a renewal of a license or amendment shall not stay any condition of the license. [MEDEP Chapter 115]
- (10) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license. [MEDEP Chapter 115]

- (11) In accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department, the licensee shall:
- A. perform stack testing to demonstrate compliance with the applicable emission standards under circumstances representative of the facility's normal process and operating conditions:
 - 1. within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions; or
 - 2. pursuant to any other requirement of this license to perform stack testing.
 - B. install or make provisions to install test ports that meet the criteria of 40 CFR Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and
 - C. submit a written report to the Department within thirty (30) days from date of test completion.
- [MEDEP Chapter 115]
- (12) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicate emissions in excess of the applicable standards, then:
- A. within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department; and
 - B. the days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and
 - C. the licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.
- [MEDEP Chapter 115]
- (13) Notwithstanding any other provisions in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for

the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement. [MEDEP Chapter 115]

- (14) The licensee shall maintain records of malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emissions unit itself that would affect emission and that is not consistent with the terms and conditions of the air emission license. The licensee shall notify the Department within two (2) days or the next state working day, whichever is later, of such occasions where such changes result in an increase of emissions. The licensee shall report all excess emissions in the units of the applicable emission limitation. [MEDEP Chapter 115]
- (15) Upon written request from the Department, the licensee shall establish and maintain such records, make such reports, install, use and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such a manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status. [MEDEP Chapter 115]

SPECIFIC CONDITIONS

(16) **Boilers**

- A. Total fuel use for Boiler #1 shall not exceed 200,000 gal/yr of #2 fuel oil. Compliance shall be demonstrated by fuel records from the supplier showing the quantity and type of fuel delivered. Records of annual fuel use shall be kept on a 12-month rolling total basis. [MEDEP Chapter 115, BPT]
- B. MMAR will not fire Boiler #2 without first obtaining a license amendment from the Department. [MEDEP Chapter 115, BPT]
- C. Emissions shall not exceed the following:

Emission Unit	Pollutant	lb/MMBtu	Origin and Authority
Boiler #1	PM	0.20	MEDEP Chapter 103, Section 2(A)(1)

- D. Emissions shall not exceed the following [MEDEP Chapter 115, BPT]:

Emission Unit	PM (lb/hr)	PM₁₀ (lb/hr)	SO₂ (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
----------------------	-----------------------	------------------------------------	-----------------------------------	-----------------------------------	-----------------------	------------------------

Boiler #1	3.90	3.90	9.82	9.75	0.70	0.03

- E. Visible emissions from Boilers #1 shall not exceed 20% opacity on a six (6) minute block average, except for no more than one (1) six (6) minute block average in a continuous 3-hour period. [MEDEP Chapter 101]

(17) Painting Process

- A. VOC emissions from the use of paints shall be documented by monthly record keeping indicating the amount of paint used on site and the VOC content of the finish. MMAR shall not exceed a monthly average of 5.0 lb. VOC per gallon of finish. The total facility VOC emissions shall not exceed 39.9 tons per year based on a 12 month rolling total. [MEDEP Chapter 115, BPT]
- B. HAP emissions shall be documented by monthly record keeping indicating the amount of products used and the percent HAP content of each product. Total facility HAP emissions shall be limited to 9.9 tons per year of any single HAP (based on a 12 month rolling total) and 24.9 tons per year (based on a 12 month rolling total) of all combined HAPs. [MEDEP Chapter 115, BPT]

(18) Shot Blasting Process

- A. MMAR shall keep all doors closed in the shot blast room during shot blast operations. [MEDEP Chapter 115, BPT]
- B. MMAR shall maintain proper operation and maintenance of the blower system including duct work, blowers and dust collection equipment. [MEDEP Chapter 115, BPT]
- C. MMAR shall maintain a log documenting dates, times, and reasons for inspections and maintenance of the blower system including ductwork, blowers and dust collection equipment. [MEDEP Chapter 115, BPT]
- D. MMAR shall maintain a log documenting dates, times that the 55 gallon drums that collect the paint dust and shot blast dust from the dust collector are emptied. [MEDEP Chapter 115, BPT]
- E. MMAR shall also make use of good housekeeping practices in the cleaning and proper disposal of used or spilt material and proper storage of unused material and equipment. [MEDEP Chapter 115, BPT]

- F. Visible emissions from the shot blast process and dust collection equipment shall not exceed an opacity of 10% on a 6 minute block average basis, except for no more than 1 six minute block average in a 1 hour period. [MEDEP Chapter 115, BPT]

(19) Parts Washers

A. Cold Cleaning Machine

The cold cleaning machine is subject to MEDEP Chapter 130.

1. MMAR shall keep records of the amount of solvent added to each parts washer. [MEDEP Chapter 115, BPT]
2. The following are exempt from the requirements of Chapter 130 [MEDEP Chapter 130]:
 - a. Solvent cleaners using less than two liters (68 oz) of cleaning solvent with a vapor pressure of 1.00 mmHg, or less, at 20° C (68° F);
 - b. Wipe cleaning; and,
 - c. Cold cleaning machines using solvents containing less than or equal to 5% VOC by weight.
3. The following standards apply to remote reservoir cold cleaning machines that are applicable sources under Chapter 130.
 - a. MMAR shall attach a permanent conspicuous label to each unit summarizing the following operational standards [MEDEP Chapter 130]:
 - (i) Waste solvent shall be collected and stored in closed containers.
 - (ii) Cleaned parts shall be drained of solvent directly back to the cold cleaning machine by tipping or rotating the part for at least 15 seconds or until dripping ceases, whichever is longer.
 - (iii) Flushing of parts shall be performed with a solid solvent spray that is a solid fluid stream (not a fine, atomized or shower type spray) at a pressure that does not exceed 10 psig. Flushing shall be performed only within the freeboard area of the cold cleaning machine.
 - (iv) The cold cleaning machine shall not be exposed to drafts greater than 40 meters per minute when the cover is open.
 - (v) Sponges, fabric, wood, leather, paper products and other absorbent materials shall not be cleaned in the degreaser.
 - (vi) When a pump-agitated solvent bath is used, the agitator shall be operated to produce no observable splashing of the solvent against the tank walls or the parts being cleaned. Air agitated solvent baths may not be used.
 - (vii) Spills during solvent transfer shall be cleaned immediately. Sorbent material shall be immediately stored in covered

containers.

(viii) Work area fans shall not blow across the opening of the degreaser unit.

(ix) The solvent level shall not exceed the fill line.

b. The remote reservoir cold cleaning machine shall be equipped with a perforated drain with a diameter of not more than six inches. [MEDEP Chapter 130, BPT]

B. MART Washer

1. MMAR shall only use aqueous solvents containing less than 5% VOC in the MART washer. [MEDEP Chapter 115, BPT]

2. MMAR shall keep records of the MSDS sheet for all chemicals used in the MART washer. [MEDEP Chapter 115, BPT]

(20) General Process Sources

Visible emissions from any general process source shall not exceed an opacity of 20% on a six (6) minute block average basis, except for no more than one (1) six (6) minute block average in a 1-hour period. [MEDEP Chapter 101]

(21) MMAR shall notify the Department within 48 hours and submit a report to the Department on a quarterly basis if a malfunction or breakdown in any component causes a violation of any emission standard (Title 38 MRSA §605).

(22) Annual Emission Statement

In accordance with MEDEP Chapter 137, the licensee shall annually report to the Department the information necessary to accurately update the State's emission inventory by means of:

1) A computer program and accompanying instructions supplied by the Department;

or

2) A written emission statement containing the information required in MEDEP Chapter 137.

Reports and questions should be directed to:

Attn: Criteria Emission Inventory Coordinator
Maine DEP
Bureau of Air Quality
17 State House Station
Augusta, ME 04333-0017

Phone: (207) 287-2437

The emission statement must be submitted by July 1 or as otherwise specified in Chapter 137.

(23) Air Toxics Emission Statement

If MMAR exceeds the thresholds for HAPs listed in Appendix A of MEDEP Chapter 137 in an inventory year, in accordance with MEDEP Chapter 137 the licensee shall report, no later than July 1 every three years (2005, 2008, 2011, etc.) or as otherwise stated in Chapter 137, the information necessary to accurately update the State's toxic air pollutants emission inventory in a format prescribed by the Department containing the information required in MEDEP Chapter 137.

Reports and questions on the Air Toxics emissions inventory portion should be directed to:

Attn: Toxics Inventory Coordinator
Maine DEP
Bureau of Air Quality
17 State House Station
Augusta, ME 04333-0017

Phone: (207) 287-2437

(24) Payment of Annual License Fee

MMAR shall pay the annual air emission license fee within 30 days of September 30th of each year. Pursuant to 38 MRSA §353-A, failure to pay this annual fee in the stated timeframe is sufficient grounds for revocation of the license under 38 MRSA §341-D, subsection 3.

DONE AND DATED IN AUGUSTA, MAINE THIS DAY OF 2007.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____
DAVID P. LITTELL, COMMISSIONER

The term of this license shall be five (5) years from the signature date above.

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 12/19/06

Date of application acceptance: 1/9/07

Date filed with the Board of Environmental Protection: _____

This Order prepared by Lynn Ross, Bureau of Air Quality.